

والان نبدأ بنماذج الامتحانات

النموذج التالي هو اخر امتحانات العظام بتاريخ الامس 29/2 احد زملائنا -
المحترمين المتعاونين وضعه علي منتدي اخر وحصلت عليه من احد زملائنا
رجاءا ان تدعو لمن وضع هذه الاسئلة ورجاءا مراجعة الاسئلة التي لم يتم
وضع اجابة لها

- on standing apprent shortenning of the lower limb is
considered

a.adduction constructure of the hip

b. abduction constructure of the hip

(A)

according to Wassel classification the most common type of
thumb polydactyly is:

a.type 1 b.type 2 c.type 3 d. type 4

(d) 43% and the least type is type 1 (2%)

old age uses crutches may cause injury to:

a.axillary nerve b.median nerve. C.radial nerve d.ulnar
nerve

(c) crutch palsy

in total knee replacement the propper allignment is :

a. 7degree varus in anatomical axis

b.7 degree valgus in anatomical axis

c. 7 degree varus in mechanical axis

d. neutral anatomical axis

(b) ???

Buttress plate is used in:

a. diaphyseal fracture

b. ****physeal fracture

c.****physeo-epiphyseal fracture

d.****physeo-diaphyseal fracture

(c)

tear drop fracture in cervical spine is caused by:

a. flexion and compression mechanism

b. extension mechanism

- c. hyperextension mechanism
 - d. compression mechanism
- (a)

posterolateral L4-5 disc prolapse cause compression on
..... nerve root.

- a. L4 b. L5 c. S1 d. cauda equina

(b.)

osteosarcoma is malignant transformation of :

- a.osteoid osteoma
- b. osteo chondroma
- c.Paget's disease
- d.giant cell tumor

(c)

morel lavallee syndrome occure in

- a.pelvic fracture
- b.spine fracture
- c.femoral shaft fracture

(a)

4ys child with perthe's dis. +irritable hip + adductor
contracture managed by

- a.skin traction
- b. adduction brace
- c. cheilectomy
- d. femoral osteotomy

(a)

ender nails is considered:

- a. cephalo-medullary
- b.centro-medullary
- c.condylo-cephalic
- d.interlocking

(c)

to gain stability the distance from the proximal one of the 2
distal screws of the interlocking nail and the fracture must

be at least:

- a. 2cm
- b. 4cm
- c. 6cm
- d. 8cm

(a)

Adult patient with # shaft humerus and closed reduction was done and on doing the post reduction x-ray there were 20 degree rotation and 15 degree medial angulation and 2.5 cm shortening we should do:

- a. repeat the reduction
- b. continue on the brace
- c. open reduction and internal fixation
- d. closed reduction and interlocking nail

(b) ??

9ys child with dis***** of the head radius 5 months ago + pain and limitation of movement of the elbow joint treated by

- a. open reduction and annular ligament reconstruction
- b. open reduction and reconstruction of the lateral collateral lig.
- c. open reduction and ulnar osteotomy
- d. closed reduction and cast

(c)

bone is formed of collagen type

- a. 1 b. 2 c. 3 d. 4

(a)

all of the following are tests of nerve irritation except:

- a. flip test
- b. contralateral nerve stretch test.
- c. Patrick test
- d. Lassegue test

(c)

as regard ischemic index diabetic foot or amputation is

expected to heal when the index is:

- a. 0.6
- b. less than 0.5
- c. less than 0.4
- d. less than 0.3

(a)

adult patient with fracture shaft ulna 6 months ago and treated with closed reduction and cast now there is still pain in the fracture site and x-ray show hypertrophic nonunion treated by:

- a. continue on the cast
- b. fixation by plate without bone graft
- c. fixation with plate and iliac crest bone graft
- d. closed reduction and interlocking nail.

(c)

the most common complication of ilizarov in treatment of comminuted fracture tibial plateau is

- a. knee stiffness
- b. pin tract infection
- c. septic arthritis

b))

indication of open reduction and internal fixation in tibial plateau fracture when the displacement in the articular surface is:

- a. 2mm
- b. 5mm
- c. 10mm
- d. 15mm

(b)

after trauma to the knee the patient examined in prone position and there is increased external rotation of the knee in 30 degree and 90 degree flexion thus he has:

- a. PCL injury
- b. PCL and posterolateral corner injury
- c. meniscal tear

d. ACL injury
(b)

patient undergo trauma to the knee joint and on examination of the knee there is increased external rotation of the knee in 30 degree and 90 degree of flexion thus he has Also PCL and posterolateral corner injury

the common deficiency occurs in which trace element in total parenteral infusion:

- a. calcium
 - b. barium
 - c. zinc
 - d. magnesium
- (c)

for pollicization of the index finger in child with hypoplastic thumb we require:

- a. stable 1st carpo-****carpal joint
 - b. stable 2nd ****charpo-pharyngeal joint
 - c. functioning interpharyngeal joint of the index finger
 - d. good thenar ms.
- (a) ??

in AC dis***** the displacement of the clavicle occurs when

- A. disruption in AC lig.
 - b. disruption in CoracoClavicular lig.
 - c. Disruption in Coraco acromial lig.
- (a)

the common unusual organism causing osteomyelitis in drug abusers is

- a. staph. Aureus
 - b. strep. Coccus
 - c. pseudomonas aeruginosa
- (c)

in chronic SCFE the best treatment is

- a. Closed reduction and fixation
- b. open reduction and fixation
- c. fixation in situ
- d. leave it

(c)

the normal notch index is

- a. 0.231
- b. 0.312
- c. 0.132
- d. 0.321

(a)

after THR surgery by 5 days and on follow up x-ray there was small island of heterotopic bone around the joint in asymptomatic patient the treatment is

- a. radiotherapy
- b. open surgery and removal
- c. indomethacin 75mg /day
- d. reassurance and observation

(c) ??

. newborn with bilateral talipes equino varus the treatment should started :

- a. immediately
- b. after 6 months
- c. after one year
- d. after 2 years

(a)

loss of function may occur when we do repair in flexor tendon in which area:

- a. insertion of FDS
- b. from the distal palmar crease to the site of insertion of FDS
- c. carpal tunnel
- d. proximal to carpal tunnel

(b)

. in trendlenburg test the trunk:

- a. sway on the affected side and the pelvis drops on the opposite side
- b. sway on the opp. Side and the pelvis drops on the aff. Side
- c. sway on the aff. Side and the pelvis drops on the aff. Side
- d. sway on the opp. Side and the pelvis drops on the opp. Side.

(a)

. in buttress plate all is true except:

- A. it negates the shearing and compression force
- b. used in ****physeo-epiphyseal fracture
- c. contouring is a must
- d. it is anchored on the most stable fragment and the fragment that it support

(a)

. what is the cause of this case

Serum ca normal

Serum phosphate..... decreased

Urine ca..... decreased

Urine phosphate Increased

Alkaline phosphatase increased

A renal disfunction

B gene mutation

c. malabsorption syn.

d. thyroid adenoma

(b) the cause of hypophosphatemic rickets

.fracture neck talus and fixed by screws and after 8 weeks there is radiolucent area appeared near the dome what is the cause?

a. non union

b. infection

c. good revascularization

(c)

. according to Hawkin classification fracture talus + dis***** in ankle joint is

- a.type 1
 - b. type 2
 - c. type 3
 - d. type 4
- (c)

50ys old patient diabetic and smoker with thickness in the palmer facia and flexion of the little and ring finger and thin subcutaneous facia treated by

- a. subcutaneous fasciactomy
 - b. partial fasciactomy
 - c. complete fasciactomy
 - d. amputation
- (b)

26years old military man after walking for 36 km he suffered from pain in the left thigh and did AP & Lateral x-ray on the hip and thigh and where normal what is the common missed diagnosis?

- A, quadriceps ms rupture
 - b. stress fracture
 - c, osteosarcoma
 - d. infection
- (b)

after THR surgery by 5 days the patient suffered from sever pain in the thigh and calf ms ,redness and fever and diffuse edeama in the leg but with normal walking the diagnosis is?

- a. infection
 - b. DVT
 - c. dis***** of the joint
- (b)

80years old patient suffered from four part fracture head of the humerus the traetment is

- A. hemiarthroplasty
- b.total shoulder replacement

- c. reduction and fixation
- d. conservative treatment

old patient suffered from polyarticular arthritis and arthritis in the DIP with no morning stiffness

- a. rheumatoid arthritis
 - b. osteoarthritis
 - c. infection
 - d. TB
- (b)

. spinal stenosis commonly occurs in level

- a. L3-4
- b. L4-L5
- c. L5-S1
- d. L2-L3

adult with distal 1/3 fracture humerus and disruption in the distal radio-ulnar joint and swelling and pain in the forearm treated by?

- a. closed reduction and cast
 - b. open reduction and plate w screw
 - c. closed reduction and interlocking nail
 - d. open reduction and interlocking nail
- (b) ???

young adult patient suffers from long standing pain in the wrist joint and on x-ray examination there was increased density of the lunate bone the diagnosis is ?

- a. Kienbock's dis.
 - b. Kohler dis.
 - c. Freiberg dis
 - d. Sever's dis
- (a)

the expected time of internal complete remodeling of bone transplant is

- a. 6 ms
- b. 1 year

- c. 2 years
- d. never

gait analysis ,computer and physical examination is important for outcome of surgery in

- a. DDH
- b. cerebral palsy
- c. TEV
- d. poliomyelitis

young male patient suffers from chronic pain in his leg and swelling in the tibia the pain is relieved by salicylate and on x-ray examination there was a nidus radiolucent area in the diaphysis surrounded by sclerosis the diagnosis is

- a. osteoid osteoma
 - b. Paget's disease
 - c. osteosarcoma
 - d. osteochondroma
- (a)

old patient treated from rheumatoid arthritis for long period he came to your clinic suffers from burning pain and numbness in the thumb and the next two fingers the diagnosis is

- a. carpal tunnel syndrome
 - b. ulnar nerve injury
- (a) [LEFT]

النموذج التالي قمت بتجميع أسئلته من نماذج متعددة التخصصات لامتحانات
الهيئة برجااء مراجعة الاجابات

522) The most common site for osteomyelitis is:

- a. Epiphysis
- b. Diaphysis
- c. ****physis

d. Blood flow

The correct answer is c

506) The most important exogenous risk factor for osteoporosis is:

- a. Alcohol intake
- b. Age
- c. Smoking
- d. Lack of exercise

the correct answer is c

514) A boy fell down on his elbow , the lateral x-ray shows:

- a. Anterior Pad sign
- b. Posterior pad sign
- c. Anterior line of humerus intersecting the cubitium
- d. Radial line forming 90 degree with cubitium

the correct answer is A

552) 70y male with osteoporosis the T score of bone densitometry would be :

- a. -3.5
- b. -2.5
- c. 1
- d. 2
- e. 3.5

567) What is the initial management for a patient newly diagnosed knee osteoarthritis. a. Intra-articular corticosteroid. b. Reduce weight. c. Exercise. d. Strengthening of quadriceps muscle.

The correct answer is b

.....
.....

587) Which of the following is true regarding perth's disease :

- A. Commonly seen between 11-16 years of age .
- B. Always unilateral .

- C. May present by painless limp .
- D. Characteristically affect the external rotation of hip .
- E. More in female .

The correct answer is c

Perthes disease (Leg-Calve perthes disease) is a condition affecting the hip joint where there is degenerative avascular necrosis of the femoral head. It affects children aged 3-12 years & is more common in males. It is most commonly but not always unilateral (85% is unilateral). It presents mainly by severe hip pain & limping that increases by movement but it can present by painless limp. It characteristically affects the internal rotation & abduction of the hip & limits these movements.

588) Patient was presented by back pain relieved by ambulation , what is the best initial treatment :

- A. Steroid injection in the back .
- B. Back bracing .
- C. Physical therapy .

The correct answer is c

589) Patient with early rheumatoid arthritis , what is your management to decrease the limitation of movement :

- Do not use analgesics or steroids, use DMARDs like methotrexate or antiTNF, hydroxychloroquine

590) little finger , with atrophy of the hypothenar muscles , EMG showed cubital tunnel compression of the ulnar nerve , what is your action now :

- A. Ulnar nerve decompression .
- B. Steroid injection .
- C. CT scan of the spine .

The correct answer is a

Patient came after deep laceration at the anterior part of the wrist:

- a. Wrist drop
- b. Sensory loss only
- c. Claw hand
- d. Unable to do thumb opposition

The correct answer is d

1- Radial nerve injury : wrist drop , common with humerus injury (humerus groove)

2- Ulnar nerve injury : claw hand , common with elbow injury

3- Median nerve injury : unable to do thumb opposition , common with wrist injury

669) Old lady afraid of Osteoporosis, to avoid the risk, you should advise her to do:

- a) Weight bearing exercise
- b) ?
- c) ?
- d) ?

Q is not complete.

670) Sickle cell anemia patient presented with asymptomatic unilateral hip pain, most likely diagnosis is:

- a) Septic arthritis
- b) Avascular Necrosis
- c) ?

The correct answer is b

.....

669) Best way to decrease pain in elderly with bilateral knee pain and crepitation is:

- a) NSAID
- b) Decrease weight
- c) Exercise
- d) ?

The correct answer is b , (I'm not sure)

671) Young male with morning stiffness at back relieved with activity and uveitis:

- a) Ankylosing Spondylitis
- b) ?

.....
.....

669) Young patient with HTN came complaining of high blood pressure and red, tender, swollen big left toe, tender swollen foot and tender whole left leg. Diagnosis is:

- a) Cellulitis
- b) Vasculitis
- c) Gout Arthritis
- d) ??

The correct answer is a , because tender and swollen whole left leg.

672) Bursitis of the elbow joint caused by:

- a) Elbow trauma
- b) Autoimmune disease
- c) Staph. Aureus
- d) ? rupture of bursa

The correct answer is a

.....
.....

669) The best non-medical therapy is proven to be of benefit for osteoarthritis is:

- a) Muscle strength exercise
- b) Give NSAID
- c) Back slap
- d) ?

The correct answer is

1- A 28-year-old woman came to your clinic with 2-month history of flitting arthralgia. Past medical history (PMH): Unremarkable. On examination: she is afebrile. Right knee joint: mild swelling with some tenderness, otherwise no other physical findings. CBC: HB 124 g/L = 12.4 g/dl ,WBC: $9.2 \times 10^9/L$, ESR: 80 mm/h, Rheumatoid factor: Negative ,VDRL: Positive ,Urine: RBC 15-20/hPF Protein 2+ ,The MOST appropriate investigation at this time is:

- A. Blood culture.
- B. A.S.O titer.
- C. C-reactive protein.
- D. Double stranded DNA.
- E. Ultrasound kidney.

- A 28 years old female. Presented complaining of fleeting arthralgia for days, has tender swelling of her Rt knee. WBC=9.8, ESR=80, Rh F= -ve, VDRL= +ve and has 19 to 20 RBC in her urine sample. The next step will be:

- a. ASO titer.
- b. Blood culture.
- c. U/S of the kidney.
- d. Double strand DNA.
- e. C-reactive protein.

Immunology

- 1. >95% are ANA +ve.
- 2. A high titre of antibodies directed against double-stranded DNA (dsDNA) is almost exclusive to SLE, but only ~60% of cases are +ve.
- 3. 40% are Rh factor +ve.
- 4. There may be false +ve syphilis serology(VDRL) due to anticardiolipin antibodies (see below).

SLE is associated with other autoimmune conditions: Sjogren's (15-20%), autoimmune thyroid disease (5-10%).

2- a 17 yrs. old football player gave HX of Lt. knee giving off .. the most likely diagnosis is :

- a- Lat. Menisceal injury
- b- medial menisceal injury
- c- lateral collateral ligament
- d- medial collateral ligament
- e ant. Curciate ligament

Ligament injuries are graded as follows: grade 1, stretching of the ligament with no detectable instability; grade 2, further stretching of the ligament with detectable instability, but with the fibers in continuity; and grade 3, complete disruption of the ligament.

Anterior Cruciate Ligament injury is often associated with a pop heard by the patient at the time of injury. This piece of history is not ACL specific, however. Upon return to competition, the patient often notices instability of the knee or describes the knee "giving out" with twisting activities. Substantial knee swelling secondary to a hemarthrosis typically occurs within the first 4 to 12 hours following the injury.

Complications

Although ACL reconstruction often results in a successful outcome, several complications can occur. One of the most common is a loss of knee motion, which is minimized by obtaining and maintaining full knee extension immediately following surgery. Knee flexion exercises are begun as soon as possible postoperatively with a goal of 90 degrees by 1 week after surgery. Additionally, patellar mobilization is performed in an attempt to minimize patellofemoral scarring. Another common complication of ACL reconstruction is anterior knee pain. The exact etiology of this pain is unclear; however, it is thought that patellar tendon autograft harvest may increase the incidence of patellofemoral pain. Less common complications (less than 1%) include patellar fracture, patellar tendon rupture, and quadriceps tendon rupture, depending on the graft harvest site.

-17 year old male while playing football felt on his knee
“turn over “ what do you think the injury that happened is ?

- a- medial meniscus lig,
- b- Lateral meniscus lig.
- c- Medial collateral lig.
- d- Lateral collateral lig.
- e- Anterior cruciate lig.

3- a 10 yrs. old boy presented to clinic with 3 weeks HX of limping that worsen in the morning .. this suggests which of the following :

- a- septic arthritis
- b- leg calve parthes disease
- c- RA
- d- a tumor
- e- slipped capital femoral epiphysis

Rheumatoid arthritis (RA) is a systemic autoimmune inflammatory disease characterized by synovitis and serositis (inflammation of the lining surfaces of the joints, pericardium, and pleura), rheumatoid nodules, and vasculitis. The hallmark feature of the disease is persistent symmetric polyarthritis (synovitis) that affects the hands and feet, although any joint lined by a synovial membrane may be involved. In addition to articular deterioration, systemic involvement may lead to weight loss, low-grade fever, and malaise. The severity of RA may fluctuate over time, but chronic RA most commonly results in the progressive development of various degrees of joint destruction, deformity, and a significant decline in functional status.

The diagnosis of rheumatoid arthritis (RA) must be considered in any patient with polyarticular inflammatory arthritis, especially if both the hands and feet are involved. The early phase of the disease is characterized by the following features:

- Joint swelling that may affect joint margins
- Joint tenderness upon palpation
- Systemic malaise

- Loss of energy
- Severe morning stiffness that limits function and generally lasts more than an hour

Women are affected by rheumatoid arthritis (RA) approximately 3 times more often than men.³ *** differences diminish in older age groups.⁴

Although rheumatoid arthritis (RA) can occur at any age, the incidence increases with advancing age. The peak incidence of RA occurs in individuals aged 40-60 years. Stiffness of the joints is a major symptom in any type of arthritis and particularly in rheumatoid arthritis (RA). Frequently, RA is accompanied by "morning stiffness." Other inflammatory conditions, such as polymyalgia rheumatica and ankylosing spondylitis, also may be accompanied by morning stiffness. The severity of stiffness may better differentiate a primary inflammatory process from other joint processes. Edema of the synovium and periarticular structures contributes to stiffness in RA by mechanically interfering with the usual biomechanics of the joint. With normal sleep patterns, stiffness is most pronounced in the morning, in part due to redistribution of interstitial fluid while sleeping.

Pain is a significant problem for most patients with RA. Although the assessment is subjective, the patient's relief from pain is the objective for treatment. Swollen joints with an applied load or joints with rapidly evolving effusions may be extremely painful due to high intra-articular pressures that lead to excessive stresses on the extensively innervated periarticular supporting structures.

Legg-Calvé-Perthes disease (LCPD) is the name given to idiopathic osteonecrosis of the capital femoral epiphysis of the femoral head. The goal of treatment is to avoid severe degenerative arthritis. Symptoms of Legg-Calvé-Perthes disease usually have been present for weeks because the child often does not complain.

- Hip or groin pain, which may be referred to the thigh
- Mild or intermittent pain in anterior thigh or knee
- Limp

- Usually no history of trauma

Slipped capital femoral epiphysis (SCFE) is one of the most important pediatric and adolescent hip disorders encountered in medical practice.^{1,2,3,4} Although SCFE is a rare condition, an accurate diagnosis combined with immediate treatment is critical.^{5,6} Despite the fact that the underlying defect may be multifactorial (eg, mechanical and constitutional factors), SCFE represents a unique type of instability of the proximal femoral growth plate. Clinically, the patient may report hip pain, medial thigh pain, and/or knee pain; an acute or insidious onset of a limp; and decreased range of motion of the hip. The chronicity of the condition should be determined.

- Prodromal symptoms (eg, hip or knee pain, limp, decreased range of motion) for less than 3 weeks are deemed acute.
- Prodromal symptoms for longer than 3 weeks are deemed chronic.
- If a patient reports symptoms of greater than 3 weeks' duration but presents with an acute exacerbation of pain, limp, inability to bear weight, or decreased range of motion with or without an associated traumatic episode, the SCFE is categorized as acute on chronic.
- Determine if a traumatic episode occurred.

Patients may present with the following symptoms:

- Pain - The presenting feature is hip (groin) pain in most patients. Up to 46% of patients with chronic slips may present with thigh pain or knee pain (referred pain, obturator nerve).
- Limp
- Inability to bear weight in acute slips
- History of irradiation, renal failure, endocrinopathy (hypothyroidism and treatment thereof, acromegaly, short stature [growth hormone supplementation])

Septic arthritis, also known as infectious arthritis, may represent a direct invasion of joint space by various microorganisms, including bacteria, viruses, mycobacteria,

and fungi. Reactive arthritis, a sterile inflammatory process, may be the consequence of an infectious process located elsewhere in the body. Although any infectious agent may cause arthritis, bacterial pathogens are the most significant because of their rapidly destructive nature. For this reason, the current discussion concentrates on bacterial septic arthritides. Failure to recognize and to appropriately treat septic arthritis results in significant rates of morbidity and may even lead to death.

Patients with an infected joint typically present with the triad of fever (40-60% of cases), pain (75% of cases), and impaired range of motion. These symptoms may evolve over a few days to a few weeks. Fever usually is low-grade ($<102^{\circ}\text{F}$), with rigors present in only 20% of cases. Spiking fevers and chills are much more common with crystalline arthritis.

4- 25 yrs. old man presented to your clinic with one month HX of aching pain in the elbow , radiates down to the lateral forearm ..the pt. frequently plays squash ... O/E: Pain increases with dorsiflexion of the wrist performed under resistance specially with elbow extended ... the most likely diagnosis :

- a- olecranon stress fracture
- b- olecranon bursitis
- c- lateral tennis elbow
- e- radial tunnel syndrome
- e- ligament sprain

Lateral epicondylitis, or tennis elbow, is the most common overuse injury of the elbow and is observed up to 10 times more frequently than medial epicondylitis. Lateral epicondylitis is usually precipitated by repetitive contraction of the wrist extensors and is characterized by aching pain that is worsened with activity. Early conservative management is the key to symptom resolution, which eventually allows return to vocational and avocational activities without restriction.^{1,2,3}

Clinical

History

The patient usually describes a gradual onset of lateral elbow pain, which is characterized as follows:

- The aching pain generally increases with activity. The patient may describe symptoms occurring during simple activities of daily living (ADL), such as picking up a cup of coffee or a gallon of milk.
- Pain may be present at night.
- Symptoms are typically unilateral.

Physical

Most commonly, the examination reveals localized tenderness to palpation just distal and anterior to the lateral epicondyle. Other symptoms include the following⁷ :

- Pain increases with resisted wrist extension, especially with the elbow in extension.
- The patient may have a weakened grip on the affected side.
- Elbow range of motion (ROM) is typically normal.
- In chronic, refractory cases, be sure to fully assess shoulder integrity and scapular stability. Weakness or instability of the scapular stabilizers may perpetuate lateral epicondylitis by leading to overuse of the wrist extensors.

Causes

- Lateral epicondylitis is an overuse syndrome generally caused by repetitive use of the wrist extensors or sustained power gripping.⁸
- Lateral epicondylitis can be associated with an imbalance secondary to muscle weakness and soft-tissue inflexibility.

5- Colle's fracture:

- distal end of the radius.
- scaphoid fracture.
- around the elbow.
- head of the radius.

A Colles' fracture, also Colles fracture, is a distal fracture of the radius in the forearm with dorsal (posterior) displacement of the wrist. The fracture is clinically referred to as a "dinner (or silver) fork deformity" due to the shape of

the resultant forearm. For a more detailed discussion see distal radius fracture.

6-A child fell on an out-stretched hand and flexed elbow, exam showed swelling around the elbow with no radial pulse, best management:

- closed reduction.
 - closed reduction then check for radial pulse.
 - open reduction.
 - cuff and collar for 3 wks.
-
- Vascular injuries should always be suspected with supracondylar fractures.
 - Ten percent of children have temporary loss of the radial pulse due to swelling and not direct arterial injury.
 - If neurovascular structures are compromised, the emergency physician may need to apply forearm traction to reestablish distal pulses.
 - If pulse is not restored with traction, emergent operative intervention for brachial artery exploration or fasciotomy is indicated.
 - Open fractures require extensive irrigation and appropriate prophylactic antibiotics, such as cefazolin and gentamicin.
 - Displaced supracondylar fractures require surgical intervention and continual monitoring of neurovascular status.

Supracondylar fracture

- Refer patients with nondisplaced fractures to an orthopedist within 24 hours to evaluate and recheck neurovascular status.
- Upon dissipation of edema, apply a long-arm cast that holds the elbow in 90° of flexion for approximately 6 weeks.

7- A 25 years old male with 3 days Hx of swelling and arthralgia of knee joints. A day later, it involved the Rt wrist also, there is Hx of travel to India. Physical examination revealed, Temperature 39, tender joints with swelling. Aspiration was done for knee joint it gave 50 cc turbid fluid

with gram - ve cocci; what is the causative organism:

- a. Brucella. gram-negative bacilli
- b. Staph. aureus. gram-positive cocci
- c. Strep pyogen. gram-positive cocci
- d. Strep pneumonia. gram-positive cocci
- e. Neisseria gonorrhea. a gram-negative diplococci

Septic arthritis, also known as infectious arthritis, may represent a direct invasion of joint space by various microorganisms, including bacteria, viruses, mycobacteria, and fungi.

Reactive arthritis, a sterile inflammatory process, may be the consequence of an infectious process located elsewhere in the body.

Although any infectious agent may cause arthritis, bacterial pathogens are the most significant because of their rapidly destructive nature. For this reason, the current discussion concentrates on bacterial septic arthritides. Failure to recognize and to appropriately treat septic arthritis results in significant rates of morbidity and may even lead to death.

The 2 major classes of bacterial/suppurative arthritis are gonococcal and nongonococcal.

Overall, although *Neisseria gonorrhoeae* remains the most common pathogen (75% of cases) among younger sexually active individuals, *Staphylococcus aureus* infection is the cause of the vast majority of cases of acute bacterial arthritis in adults and in children older than 2 years.⁸ This pathogen is the cause in 80% of infected joints affected by rheumatoid arthritis.

Streptococcal species, such as *Streptococcus viridans*, *Streptococcus pneumoniae*, and group B streptococci, account for 20% of cases.

Aerobic gram-negative rods are involved in 20-25% of cases.

Most of these infections occur in people

1. who are very young,
2. who are very old,¹¹
3. who are immunosuppressed, and
4. who abuse intravenous drugs.¹

Infection of the sternoclavicular and sacroiliac joints with *Pseudomonas aeruginosa* or *Serratia* species occurs almost exclusively in persons who abuse intravenous drugs. Persons with leukemia are predisposed to *Aeromonas* infections.¹²

While *Staphylococcus aureus*, *Neisseria gonorrhoeae*, and other bacteria are the most common causes of infectious arthritis, various mycobacteria, spirochetes, fungi, and viruses also infect joints.

8- A 33 year Saudi male complaining from lower back pain and considerable morning stiffness. X-ray showed sclerosis joint. Other criterion of this disease are all the following except:

- a. Common in male.
- b. - ve Rh F.
- c. No subcutaneous nodules.
- d. Aortic complications.

- patient with pain in sacroiliac joint, with morning stiffness. x-ray of sacroiliac joint., all will be found except:

- a) - ve Rh F
- b) subcutaneous nodules.
- c) male > female

Ankylosing spondylitis (AS) is an inflammatory disorder of unknown cause the prevalence in men is approximately three times that in women. The initial symptom is usually dull pain, insidious in onset, felt deep in the lower lumbar or

gluteal region, accompanied by low-back morning stiffness of up to a few hours' duration that improves with activity and returns following periods of inactivity. Within a few months of onset, the pain has usually become persistent and bilateral. Nocturnal exacerbation of pain that forces the patient to rise and move around may be frequent.

The typical patient is a young man presenting with low back pain, spinal morning stiffness, progressive loss of spinal movement (spinal ankylosis) who later develops kyphosis, neck hyperextension (question mark posture), and spino-cranial ankylosis. Other features and associations:

- Thoracic excursion decreased
- Chest pain
- Hip involvement
- Knee involvement
- Enthesitides1a of calcanea, tibial or ischial tuberosities, or plantar fascia
- Crohn's/UC, psoriaform rashes, amyloid
- Carditis; iritis; recurrent sterile urethritis
- Aortic valve disease

LABORATORY FINDINGS

No laboratory test is diagnostic of AS. In most ethnic groups, the HLA-B27 gene is present in approximately 90% of patients with AS. Most, but not all, patients with active disease have an elevated erythrocyte sedimentation rate and an elevated level of C-reactive protein. A mild normochromic, normocytic anemia may be present. Patients with severe disease may show an elevated alkaline phosphatase level. Elevated serum IgA levels are common. Rheumatoid factor and antinuclear antibodies are largely absent unless caused by a coexistent disease. Synovial fluid from inflamed peripheral joints in AS is not distinctly different from that of other inflammatory joint diseases. In cases with restriction of chest wall motion, decreased vital capacity and increased functional residual capacity are common, but airflow measurements are normal and ventilatory function is usually well maintained.

9- Flexion, adduction, and internal rotation is:

- a. Anterior hip dis*****.
- b. posterior hip dis*****.

- Adduction hip & internal rotation in flexed position will be:

- a) Ant. Dis***** of hip
- b) Post. Dis***** of hip

Inspection

Isolated anterior and posterior dis*****s have classic appearances. In practice, these appearances may be altered by the presence of fracture-dis*****s or other bony abnormalities along the leg.

- Posterior: The hip is flexed, internally rotated, and adducted.
- Anterior: The hip is minimally flexed, externally rotated and markedly abducted

10- 32 year old Egyptian male patient came with open tibial fracture what is the appropriate medication:

- a. Gentamycin.
- b. Penicillin, Gentamycin and 3rd generation Cephlosporin.
Peni+genta+1st gener ceph
- c. Acetazo.
- d. Acetazo...+Gentamycin. Cefazolin +Gentamycin
- e. Ciprofloxacin + Gentamycin

Open fractures must be diagnosed and treated appropriately (also see Tibia Fractures, Open). Tetanus should be updated and appropriate antibiotics given. This should involve antistaphylococcal coverage and consideration of an aminoglycoside for more severe wounds. Orthopedics should be consulted for emergent debridement and wound care. Fractures with tissue at risk for opening should be protected to prevent further morbidity.

Intravenous antibiotics are administered promptly. First-

generation cephalosporins (Gram-positive coverage) such as cephalothin (1-2 g q6-8h) suffice for Gustilo-Anderson type I fractures. An aminoglycoside (Gram-negative coverage) such as gentamycin (120 mg q12h; 240 mg/d) is added for types II and III injuries. Additionally, metronidazole (500 mg q12h) or penicillin (1.2 g q6h) can be added for coverage against anaerobes. Tetanus prophylaxis should be instituted. Antibiotics generally are continued for 72 hours following wound closure.

CEFAZOLIN : First-generation cephalosporin.

11- Old age female presents with morning stiffness, on examination there is distal interphalangeal joint enlargement. What is this swelling called:

- a. Sigmoid.
- b. Heberden.
- c. Bouchard.
- d. Synovial swelling.

- A 80 year old lady with RA had swelling of the distal interphalangeal joints. What is the name of this lesion?

- a. Heberden's nodules

Heberden's nodes are hard or bony swellings that can develop in the distal interphalangeal joints (DIP) (the joints closest to the end of the fingers and toes). They are a sign of osteoarthritis and are caused by formation of osteophytes (calcific spurs) of the articular (joint) cartilage in response to repeated trauma at the joint.

Bouchard's nodes are hard, bony outgrowths or gelatinous cysts on the proximal interphalangeal joints (the middle joints of fingers or toes.) They are a sign of osteoarthritis, and are caused by formation of calcific spurs of the articular (joint) cartilage. Bouchard's nodes are comparable in presentation to Heberden's nodes, similar osteoarthritic growths on the distal interphalangeal joints, but are significantly less common.

12- A 58 years old very heavy alcoholic and smoker. you find 3cm firm mass at Rt. Midclavicle. Most appropriate is:

- a. CT of brain.
- b. CT of trachia.
- c. Fine needle aspiration biopsy.
- d. Excessional biopsy.
- e. Indirect laryngoscopy.

13- Rheumatoid Arthritis:

- a. Destruction in articular cartilage
- b. M=F
- c. No nodules
- d. Any synovial joint
- e. HLA DR4

Rheumatoid arthritis (RA) is a systemic autoimmune inflammatory disease characterized by synovitis and serositis (inflammation of the lining surfaces of the joints, pericardium, and pleura), rheumatoid nodules, and vasculitis. The hallmark feature of the disease is persistent symmetric polyarthritis (synovitis) that affects the hands and feet, although any joint lined by a synovial membrane may be involved. In addition to articular deterioration, systemic involvement may lead to weight loss, low-grade fever, and malaise. The severity of RA may fluctuate over time, but chronic RA most commonly results in the progressive development of various degrees of joint destruction, deformity, and a significant decline in functional status.

The primary targets of inflammation are synovial membranes and articular structures. Other organs are affected as well. Inflammation, proliferation, and degeneration typify synovial membrane involvement. Joint deformities and disability result from the erosion and destruction of synovial membranes and articular surfaces.

Female-to-male ratio is approximately 3:1.

14- A 32 year old female work as a file clerck she developed sudden onset of low back pain moderate in severity for 3 days duration when she was bending to pick up files. There is no evidence of nerve root compression. What is the proper action?

- a. Bed rest for 7 days to 10 days
- b. Traction
- C. Narcotics analgesia
- d. Early activity with return to work
- e. CT scan for lumbosacaral vertebra

- A 32 y.o. lady work in a file clerk developed sudden onset of low back pain when she was bending on files, moderately severe for 3 days duration. There is no evidence of nerve root compression. What is the proper action?

- a- bed rest for 7 to 10 days.
- b- traction.
- c- narcotic analgesia.
- d- early activity with return to work.
- e- CT scan for lumbosacral vertebrae.

Clinical

History

The history may be sufficient to make presumptive diagnosis of a disk disorder, or it may guide the physician's usage of ancillary testing and consultations to further differentiate both the specific type of disk disease and potential other etiologies of the patient's back pain.

- Patients with disk disease usually are not able to give a precise time that the problem began because it usually is preceded by multiple episodes of less severe low back pain.
- Asking the patient the ***** of the pain is important.
 - o Pain that is localized to the lower back and gluteal area often is associated with disk disease.
 - o Pain associated with nerve root involvement commonly radiates down the leg, particularly below the level of the knee.

- o Ask the patient about any unusual recent activity, especially if it involved the patient remaining in a flexed or rotated position. Find out if the patient experienced any recent trauma.
- o Pain with flexion, rotation, or prolonged sitting or standing, and sharp (rather than dull) pain are suggestive of disk disease.
- o The onset of pain may begin suddenly¹ or gradually after injury.
- o Typically, the pain is located bilaterally at the posterior belt line.
- o The pain pattern usually is referred rather than radicular.
- o Back motion, which includes sitting, standing, lifting, bending, and twisting, usually aggravates the pain; it often is relieved with rest and a recumbent position.

Physical

Nerve roots exit the spine below the intervertebral disks; thus, herniation of a disk involves the nerve root below it.

- Observe the patient for abnormal gait, which is suggestive of a loss of the normal rhythm. Have ambulatory patients walk on their toes to test the function of S1.
- Observe the patient for abnormal posture, which is suggestive of splinting or guarding from pain.
- Test the patient's ability to dorsiflex the foot while sitting to test the L5 nerve root. Test for sensory loss that corresponds to a dermatomal area.
- Palpation of the lumbar spine and lower back is not helpful in the diagnosis of disk disease, but it should be done to rule out other causes of low back pain.
- A positive straight leg raising test is indicative of nerve root involvement.
- o This test is performed while the patient is lying supine with one leg either straight or flexed at the knee, with the sole of the foot flat on the stretcher. The other leg is kept straight and lifted by the examiner.
- o If pain occurs when the leg is lifted between 30-70 degrees from horizontal and travels down the leg until below the knee, the test is positive.
- Nerve root stretch test results are often negative.

- Patients may exhibit decreased lumbar range of motion (ROM).
- The usual motor, sensory, and reflex examinations (including perianal sensation and anal sphincter tone when appropriate) should be performed.
- A careful abdominal and vascular examination is mandatory in evaluation of these patients.

Causes

- The normal aging process of the musculoskeletal system aggravates acute events.
- Risk factors
 - o Age
 - o Activity
 - o Smoking
 - o Obesity
 - o Vibration (eg, driving a car)
 - o Sedentary lifestyle
 - o Psychosocial factors

Most patients with pain from lumbar disk disease have resolution of their symptoms with conservative treatment.

- For an otherwise healthy individual, diagnostic studies are not recommended, unless the patient is immobilized completely by the pain and requires admission or the pain has been present for more than 6 weeks,

Elderly patients or those with a history of cancer or chronic infection (including tuberculosis), trauma, or osteoporosis should have imaging studies performed as part of their routine workup during initial presentation.

- MRI is the imaging modality of choice in evaluating patients with lumbar disk disease.⁴ Studies have shown that as many as 60% of people without back symptoms have disk bulges and protrusions on MRI.⁵ Therefore, these findings may not correlate with the patient's symptoms. CT scanning is useful for diagnosing disk disease but is less sensitive than MRI. CT scanning of the abdomen can help to evaluate

and rule out other etiologies of pain such as aortic aneurysm, ureteral calculi, and intra-abdominal causes. Combining CT scan with myelography can increase the sensitivity of the modality for spinal cord pathology.

Treatment

Prehospital Care

Little is needed in the way of prehospital care. Appropriate spinal immobilization should be considered if the patient has evidence of trauma; otherwise, simple transportation in the position of comfort is all that is indicated.

Emergency Department Care

- Patients should lie in a position in which they are most comfortable.

- Muscle relaxants are of limited use, and clinical studies have not proven their efficacy. This class includes benzodiazepines, methocarbamol, and cyclobenzaprine.

Patients should be warned that all of these drugs are sedating.

- Opioids provide very effective acute pain relief, but they should not be used in patients with chronic pain.

- Salicylates, acetaminophen, and nonsteroidal anti-inflammatory drugs (NSAIDs) all have been used in the treatment of pain from lumbar disk disease, but none of these has been shown to be superior to the others.

Acetaminophen lacks anti-inflammatory activity.

Bed rest is not recommended most of the time. The exception is for patients whose pain is so severe that they cannot ambulate.

- Prolonged immobilization may worsen pain and extend recovery time.

- Strict bed rest should never exceed 2 days. Patients should be encouraged to begin limited activity as soon as possible.

- Whether spinal manipulation (ie, chiropractic care) improves the rate of recovery in patients with disk disease is controversial.

- Multiple surgical techniques have been used in patients

with disk herniation who have not responded to 6 weeks of conservative therapy. These techniques include diskectomy, spinal fusion, and injection of chymopapain. Newer techniques continue to be developed.6,7,8

15- In lumbar disc prolapse at L4-L5 the patient will have:

- a. Pain at groin & front of thigh
- b. Hypoesthesia around the knee
- C. Weakness of dorsiflexion of foot
- d. Absent ankle reflex
- e. Fasciculation at calf muscle

Test the patient's ability to dorsiflex the foot while sitting to test the L5 nerve root. Test for sensory loss that corresponds to a dermatomal area.

تابع نماذج الهيئة طب العظام

16- A 34 year old male presented with right knee pain, swelling, redness and fever for 2 days with no history of trauma, sore throat, not other joint involvement, the most appropriate diagnosis is:

- a) R.A.
- b) Rh fever
- c) Septic arthritis
- d) Gout

17-A 30 years old male with hx of pain and swelling of the Rt knee, synovial fluid aspiration showed yellow color opaque appearance, variable viscosity. WBC = 150,000 , 80% neutrophils, poor mucin clot,Dx is:

- a. Goutism Arthritis
- b. Meniscal tear
- c. RA
- d. SA (septic arthritis)

e. Pseudogout arthritis

INITIAL ASSESSMENT OF A MUSCULOSKELETAL COMPLAINT

1. Articular versus nonarticular. Is the pain located in a joint or in a periarticular structure such as soft tissue or muscle?
2. Inflammatory versus noninflammatory. Inflammatory disease is suggested by local signs of inflammation (erythema, warmth, swelling); systemic features (morning stiffness, fatigue, fever, weight loss); or laboratory evidence of inflammation (thrombocytosis, elevated ESR or C-reactive protein).
3. Acute (≤ 6 weeks) versus chronic.
4. Localized versus systemic.

HISTORIC FEATURES

- Age, sex, race, and family history
- Symptom onset (abrupt or indolent), evolution (chronic constant, intermittent, migratory, additive), and duration (acute versus chronic)
- Number and distribution of involved structures: monoarticular (one joint), oligoarticular (2–3 joints), polyarticular (>3 joints); symmetry
- Other articular features: morning stiffness, effect of movement, features that improve/worsen Sx (Symptoms)
- Extraarticular Sx: e.g., fever, rash, weight loss, visual change, dyspnea, diarrhea, dysuria, numbness, weakness
- Recent events: e.g., trauma, drug administration, travel, other illnesses

PHYSICAL EXAMINATION

Complete examination is essential: particular attention to skin, mucous membranes, nails (may reveal characteristic pitting in psoriasis), eyes. Careful and thorough examination of involved and uninvolved joints and periarticular structures; this should proceed in an organized fashion from head to foot or from extremities inward toward

axial skeleton; special attention should be paid to identifying the presence or absence of:

1. Warmth and/or erythema
2. Swelling
3. Synovial thickening
4. Subluxation, dis*****, joint deformity
5. Joint instability
6. Limitations to active and passive range of motion
7. Crepitus
8. Periarticular changes
9. Muscular changes including weakness, atrophy

LABORATORY INVESTIGATIONS

Additional evaluation usually indicated for monoarticular, traumatic, inflammatory, or chronic conditions or for conditions accompanied by neurologic changes or systemic manifestations.

1. For all evaluations: include CBC, ESR, or C-reactive protein
2. Where there are suggestive clinical features, include: rheumatoid factor, ANA, antineutrophilic cytoplasmic antibodies (ANCA), antistreptolysin O titer, Lyme antibodies
3. Where systemic disease is present or suspected: renal/hepatic function tests, UA
4. Uric acid-useful only when gout diagnosed and therapy contemplated
5. CPK, aldolase-consider with muscle pain, weakness
6. Synovial fluid aspiration and analysis: always indicated for acute monoarthritis or when infectious or crystal-induced arthropathy is suspected. Should be examined for (1) appearance, viscosity; (2) cell count and differential (suspect septic joint if WBC count > 50,000/ μ L); (3) crystals using polarizing microscope; (4) Gram's stain, cultures.

DIAGNOSTIC IMAGING

Conventional radiography using plain x-rays is a valuable tool in the diagnosis and staging of articular disorders. Additional imaging procedures, including ultrasound,

radionuclide scintigraphy, CT, and MRI, may be helpful in selected clinical settings.

SPECIAL CONSIDERATIONS IN THE ELDERLY PATIENT

The evaluation of joint and musculoskeletal disorders in the elderly pt presents a special challenge given the frequently insidious onset and chronicity of disease in this age group, the confounding effect of other medical conditions, and the increased variability of many diagnostic tests in the geriatric population. Although virtually all musculoskeletal conditions may afflict the elderly, certain disorders are especially frequent. Special attention should be paid to identifying the potential rheumatic consequences of intercurrent medical conditions and therapies when evaluating the geriatric pt with musculoskeletal complaints.

A definitive diagnosis of gout is based upon the identification of monosodium urate (MSU) crystals in the synovial fluid.[1] They have a needle-like morphology and strong negative birefringence under polarized light. This test is difficult to perform and often requires a trained observer.[

Chondrocalcinosis is a very similar disease, caused by deposition of calcium pyrophosphate rather than uric acid. 18-fracture of a rib can cause all except:

- a. Pneumothorax
- b. Hemothorax
- c. Esophageal injury midline organ away from fractured rib
- d. Liver injury

19-Osteoporosis with back pain

- a. Vitamin D decreased
- b. Rule out if the X-ray is normal
- c.....
- e.....

20- 27 yo male has symmetric oligoarthritis , involving knee and elbow , painful oral ulcer for 10 years, came with form

of arthritis and abdominal pain. Dx is:

- a. Behçet's disease
- b. SLE
- c. Reactive arthritis
- d. UC
- e. Whipple's disease

Behçet disease (BD) is characterized by a triple-symptom complex of recurrent oral aphthous ulcers, genital ulcers, and uveitis.

Pertinent site-specific manifestations include the following:

- Skin and mucous membranes
 - o Painful oral lesions (aphthous or herpetiform) are one of the criteria for diagnosis and may be the first manifestation (70% of cases).
 - o Skin lesions often occur in the genital region of both sexes. In males, scrotal involvement is most characteristic; however, lesions can also develop on the penile shaft. In females, the labial area is most commonly involved, with lesions occasionally developing in the vagina and on the perineum. Genital ulcerations typically heal with scarring and are more painful in men.
- Ocular lesions
 - o Ocular presentations (anterior or posterior uveitis, hypopyon, retinal vasculitis) represent the first manifestation of disease in 10% of patients with Behçet disease but usually occur following oral ulceration.¹¹
 - o Symptoms commonly include blurred vision, periorbital pain, photophobia, scleral injection, and excessive lacrimation.
- Arthritis
 - o Arthritis and arthralgias occur in as many as 60% of patients and primarily affect the lower extremities, especially the knee. Ankles, wrists, and elbows can also be primarily involved.
 - o The arthritis is nondeforming and asymmetric in nature and can assume a monoarticular, oligoarticular, or

polyarticular pattern of involvement.

- o Symptoms relapse and remit and rarely become chronic.

- Gastrointestinal/genitourinary manifestations

- o GI involvement affects 3-16% of patients with Behçet disease.¹⁷

- o Areas affected often include the esophagus and ileocecal area.

- o Symptoms include abdominal pain, bloating, and GI bleeding.

- o Complications often result from deep ulceration of intestinal sections.

- o GU involvement can include epididymitis, neurogenic bladder, and sterile urethritis.

Reactive arthritis (ReA), also known as Reiter syndrome, is an autoimmune condition that develops in response to an infection. In 1916, Hans Reiter described the triad of nongonococcal urethritis, conjunctivitis, and arthritis in a young German officer with bloody dysentery.¹ In 1916, Fiessinger and Leroy described 4 patients with what they called oculo-urethro-synovial syndrome and associated the syndrome with an outbreak of *Shigella* dysentery.

Systemic lupus erythematosus (SLE) is a chronic, multifaceted inflammatory disease that can affect every organ system of the body. SLE is protean in its manifestations and follows a relapsing and remitting course. This article addresses what is known regarding the etiology, pathophysiology, clinical features, and treatment of SLE.

Systemic lupus erythematosus (SLE) is a chronic autoimmune disease that can affect almost any organ system. Its presentation and course are highly variable, ranging from indolent to fulminant. The following is an overview of the multitudinous protean manifestations.^{15,16}

- Constitutional symptoms: Nonspecific fatigue, fever, arthralgia, and weight changes are the most common symptoms in new cases or recurrent active SLE flares. Fatigue, the most common constitutional symptom associated with SLE, can be due to active SLE, medications, lifestyle habits, or concomitant fibromyalgia or affective

disorders. Fatigue due to active SLE generally occurs in concert with other clinical and laboratory markers. Fever, another common yet nonspecific symptom of SLE, may also result from many causes, the most common of which include active SLE, infection, and drug fever. Careful history taking may help to differentiate these. Weight loss may occur in patients with active SLE. Weight gain may also be due to corticosteroid treatment or active disease such as nephrotic syndrome anasarca.

- Musculoskeletal symptoms: Joint pain is one of the most common reasons for the initial clinical presentation in patients with SLE. Arthralgia, myalgia, and frank arthritis may involve the small joints of the hands, wrists, and knees. In contrast to rheumatoid arthritis, SLE arthritis or arthralgia may be asymmetrical, with pain that is disproportionate to swelling.

- Dermatological symptoms

- o Cutaneous manifestations of SLE comprise 4 diagnostic criteria and multiple other clues to a potential diagnosis of lupus.

- ♣ The first is malar rash, which is characterized by an erythematous rash over the cheeks and nasal bridge. It lasts from days to weeks and is occasionally painful or pruritic.

- ♣ The second feature is photosensitivity, which may be elicited from patients who are asked if they have any unusual rash or symptom exacerbation after sun exposure.

- ♣ The third feature may be discoid rash. Discoid lesions often also develop in sun-exposed areas but are plaquelike in character, with follicular plugging and scarring. They may be part of systemic lupus or may represent discoid lupus without organ involvement, which is a separate diagnostic entity.

- ♣ Alopecia is the fourth and often less-specific cutaneous feature of SLE. It often affects the temporal regions or creates a patchlike pattern of hair loss.

- o Other cutaneous manifestations related to but not specific to SLE include Raynaud phenomenon, livedo reticularis, panniculitis (lupus profundus), bullous lesions, vasculitic purpura, telangiectasias, and urticaria.

- Renal features: The kidney is the most commonly involved visceral organ in SLE. Although only approximately 50% of patients with SLE develop clinically evident renal disease, biopsy studies demonstrate some degree of renal involvement in almost all patients. Glomerular disease usually develops within the first few years of SLE onset and is usually asymptomatic. Acute or chronic renal failure may cause symptoms related to uremia and fluid overload. Acute nephritic disease may manifest as hypertension and hematuria. Nephrotic syndrome may cause edema, weight gain, or hyperlipidemia

21- 70 yo fell on outstretched hand .on examination: intact radial and ulnar pulses, dinner fork deformity .Tender radial head. Diagnosis is:

- Colles fracture.
- Fracture of distal ulna & displacement of radial head
- Fracture of scaphoid
- fracture of shaft of radius with displacement of head of ulna.

22- An 80 year old lady presented to your office with a 6 month history of stiffness in her hand,bilaterally. This stiffness gets worse in the morning and quickly subsides as the patient begins ge daily activities. She has no other significant medical problems. On examination the patient has bilateral bony swellings at the margins of the distal interphalangeal joints on the (2m15th) digits. No other abnonnalities were found on the physical examination.

These swellings represent:

- A) Heberden's nodes
- B) Bouchar's nodes
- C) Synovial thickenings
- D) Subcutaneous nodules
- E) Sesamoids

23- a 25 year old male who recently came from India presented with a 3 days history of left knee pain + swelling, 1 day history of right wrist swelling.on examination it was

swollen, tender, red with limitation of movement 50 cc of fluid was aspirated from the knee. Gram stained showed gram positive diplococci. What's the most likely organism?

- a) brucella
- b) nisseria meningitides
- c) strep. Pneumonia??
- d) staph aureus
- e) strept. pyogens

24- What is the simplest method to diagnose fractured rib:

- a) Posteroanterior x ray simple but less sensitive (50%)
- b) Lateral x ray
- c) Tomography of chest more sensitive but not simple
 - Chest radiographs
 - o Anteroposterior (AP) and lateral chest films are used routinely to assist in the diagnosis of rib fractures, yet sensitivity as low as 50% has been reported. Delayed or follow-up radiographs can be very helpful.
 - o Chest radiographs are much more useful in the diagnosis of underlying injuries, including hemothorax, pneumothorax, lung contusion, atelectasis, pneumonia, and vascular injuries.
 - Rib radiographs
 - o Obtaining a rib radiograph series remains controversial, as the additional information rarely changes the clinical picture or alters treatment. This rib detail radiographs can be helpful in evaluation of the 1st and 2nd ribs and the 7th through 12th ribs. Formal plain radiographs can also be useful to ***** abuse for legal purposes.
 - o Diagnostic sensitivity is higher in rib radiographs than in chest radiographs; however, with a high clinical suspicion, treat for fracture regardless of the radiographic result. A rib radiograph is shown below.
 - Chest CT scan
 - o A chest CT scan is more sensitive than plain radiographs for detecting rib fractures. The modality can also provide information regarding the number of ribs involved.
 - o If complications from rib fractures is suspected clinically or diagnosed by plain radiographs, a chest CT scan may be

helpful to ***** specific injuries, characterize extent of injury, and plan for definitive management.

- o An associated CT scan of the abdomen with intravenous contrast should be considered in cases involving lower rib fractures with suspected or known injury to the liver and/or the spleen.

- Angiography

- o Since first and second rib fractures are often associated with vascular injury, ED physicians should consider angiography for such patients, especially if symptoms and signs of neurovascular compromise are present.

- o This is particularly important with posteriorly displaced fractures of the first 2 ribs, which have a much higher degree of association with abnormal angiographic findings than other rib fractures.

- o While first rib fractures previously were considered a strong risk factor for aortic injury, most authorities now believe that aortography and/or CT scan are not indicated without other evidence of injury, such as abnormal mediastinum.

25- A 30-year-old man had pelvic fracture due to blunt trauma. Retrograde urethrography demonstrated disruption of the membranous urethra. The best initial treatment is:

A. Passage of transurethral catheter.

B. Suprapubic catheter.

C. Perineal repair.

D. Retropubic repair.

E. Transabdominal repair.

Pelvic fracture is a disruption of the bony structures of the pelvis. In elderly persons, the most common cause is a fall from a standing position. However, fractures associated with the greatest morbidity and mortality involve significant forces such as from a motor vehicle crash or fall from a height.

- Do not place a urinary catheter until urethral injury has been ruled out or determined to be unlikely by physical

examination or retrograde urethrography.

- The traditional intervention for men with posterior urethral injury secondary to pelvic fracture is placement of a suprapubic catheter for bladder drainage and subsequent delayed repair. This is the safest approach because it establishes urinary drainage and does not require either urethral manipulation or entrance into the hematoma caused by the fracture of the pelvis.

26- fractured humerus commonly associated with:

- a) radial N injury
- b) ulnar N injury
- c) medial N injury
- d) axillary N injury
- e) musculocutaneous N injury

Perform a careful neurovascular examination. Radial nerve injury following humerus shaft fractures is relatively common.

- Assessment of the radial nerve

- o The radial nerve's primary motor function is to innervate the dorsal extrinsic muscles in the forearm. Motor testing should include extension of the wrist and

****carpophalangeal (MCP) joints as well as abduction and extension of the thumb. Proximal injury of the radial nerve causes wrist drop.

- o On examination, the fingers are in flexion at the MCP joints and the thumb is adducted.

- Rarely, the median or ulnar nerves are affected.
- With all humerus fractures, ensure strong radial and ulnar pulses.

27- fractured pelvis commonly associated with:

- a) bladder injury

- b) penile urethra injury
- c) bulbomembraneus urethra injury
- d) ureter injury

Posterior urethral injuries are located in the membranous and prostatic urethra. These injuries are most commonly related to major blunt trauma such as motor vehicle collisions and major falls, and most of such cases are accompanied by pelvic fractures.

Complications of pelvic fracture include the following:

- Increased incidence of deep venous thrombosis
- Continued bleeding from fracture or injury to pelvic vasculature
- GU problems from bladder, urethral, prostate, or vaginal injuries: The incidence of urethral injuries varies by the type of pelvic fracture. Straddle fractures associated with sacroiliac diastasis have the highest incidence (odds ratio of 24). Without diastasis, the odds ratio dropped to 3.85. Urethral injuries are uncommon in patients with fractures not involving the ischiopubic rami.
- ***ual dysfunction may develop
- Infections from disruption of bowel or urinary system
- Chronic pelvic pain

28- Patient with RT femur fracture developed chest pain, hemoptysis, ABG Po2 below 65 pCO2 increased, first line of management:

- a) Heparin. For pulmonary embolism after DVT or fat embolism
- b) aminophylline.

Complications of femur fracture:

- Hemorrhagic shock
 - o Closed fractures of the femur can result in significant blood loss (eg, 1 L) within the thigh. Open fractures have the potential for even greater blood loss.
 - o Because of the high rate of associated injuries, actively seek out other sources of blood loss in patients with femur

fractures and hypovolemic shock.

- Neurovascular injury

- o Injuries to the neurovascular bundle are rare because of the large cushion of muscle protecting neurovascular structures.

- o Compartment syndrome of the thigh does not occur often, and peroneal nerve contusion is seen occasionally.

- Infection: While open fractures are at high risk of soft-tissue and bony infection, postoperative infection is rare following repair of closed fractures.

- Respiratory demise: Fat embolism and adult respiratory distress syndrome (ARDS) can occur.

- More delayed complications include permanent stiffness of the hip or knee, shortening of the extremity, or malrotation, resulting in permanent deformity and decreased performance.

- Complications directly related to repair include (in order of increasing frequency) breakage of fixator hardware, nonunion, malunion, or delayed union.

- Finally, refracture has occurred at the initial injury site.

29- which of the following is not true regarding osteomyelitis:

a) pyomyositis

b) epiphyseal plate destruction

c) septic arthritis(it can develop due to septic arthritis)

d) septicemia

e) after bone growth

- Which one of the following regarding osteomyelitis

1) Pyomyositis

2) Epiphyseal plate destruction

3) Septicemia

4) Septic arthritis

Osteomyelitis is an acute or chronic inflammatory process of the bone and its structures secondary to infection with pyogenic organisms. The infection associated with osteomyelitis may be localized or it may spread through the periosteum, cortex, marrow, and cancellous tissue. The bacterial pathogen varies on the basis of the patient's age and the mechanism of infection.

The following are the 2 primary categories of acute osteomyelitis: hematogenous osteomyelitis and direct or contiguous inoculation osteomyelitis.

1. Hematogenous osteomyelitis is an infection caused by bacterial seeding from the blood. Acute hematogenous osteomyelitis is characterized by an acute infection of the bone caused by the seeding of the bacteria within the bone from a remote source. This condition primarily occurs in children. The most common site is the rapidly growing and highly vascular *****physis** of growing bones. The apparent slowing or sludging of blood flow as the vessels make sharp angles at the distal *****physis** predisposes the vessels to thrombosis and the bone itself to localized necrosis and bacterial seeding. Acute hematogenous osteomyelitis, despite its name, may have a slow clinical development and insidious onset.

2. Direct or contiguous inoculation osteomyelitis is caused by direct contact of the tissue and bacteria during trauma or surgery. Direct inoculation (contiguous-focus) osteomyelitis is an infection in the bone secondary to the inoculation of organisms from direct trauma, spread from a contiguous focus of infection, or sepsis after a surgical procedure. Clinical manifestations of direct inoculation osteomyelitis are more localized than those of hematogenous osteomyelitis and tend to involve multiple organisms.

Additional categories include chronic osteomyelitis and osteomyelitis secondary to peripheral vascular disease.

- Chronic osteomyelitis persists or recurs, regardless of its

initial cause and/or mechanism and despite aggressive intervention.

- Although listed as an etiology, peripheral vascular disease is actually a predisposing factor rather than a true cause of infection.

Disease states known to predispose patients to osteomyelitis include :

1. diabetes mellitus,1
 2. sickle cell disease,
 3. acquired immune deficiency syndrome (AIDS),
 4. intravenous (IV) drug abuse,
 5. alcoholism,
 6. chronic steroid use,
 7. immunosuppression, and
 8. chronic joint disease.
9. In addition, the presence of a prosthetic orthopedic device is an independent risk factor, as is any recent orthopedic surgery or open fracture.

Male-to-female ratio is approximately 2:1.

Age

In general, osteomyelitis has a bimodal age distribution. Acute hematogenous osteomyelitis is primarily a disease in children. Direct trauma and contiguous focus osteomyelitis are more common among adults and adolescents than in children. Spinal osteomyelitis is more common in persons older than 45 years.

Clinical

History

Hematogenous osteomyelitis usually presents with a slow insidious progression of symptoms. Direct osteomyelitis generally is more localized, with prominent signs and symptoms.

General symptoms of osteomyelitis include the following:

- Hematogenous long-bone osteomyelitis

1. Abrupt onset of high fever (fever is present in only 50% of neonates with osteomyelitis)

2. Fatigue

3. Irritability

4. Malaise

5. Restriction of movement (pseudoparalysis of limb in neonates)

6. Local edema, erythema, and tenderness

- Hematogenous vertebral osteomyelitis

1. Insidious onset

2. History of an acute bacteremic episode

3. May be associated with contiguous vascular insufficiency

4. Local edema, erythema, and tenderness

5. Failure of a young child to sit up normally³

- Chronic osteomyelitis

1. Nonhealing ulcer

2. Sinus tract drainage

3. Chronic fatigue

4. Malaise

Physical

Findings at physical examination may include the following:

1. Fever (present in only 50% of neonates)

2. Edema

3. Warmth

4. Fluctuance

5. Tenderness to palpation

6. Reduction in the use of the extremity (eg, reluctance to ambulate, if the lower extremity is involved or pseudoparalysis of limb in neonates)

7. Failure of a young child to sit up normally

8. Sinus tract drainage (usually a late finding or one that occurs with chronic infection)

Causes

Note that responsible pathogens may be isolated in only 35-40% of infections. Bacterial causes of acute and direct osteomyelitis include the following:

Acute hematogenous osteomyelitis (Note increasing reports

of other pathogens in bone and joint infections including community-associated methicillin-resistant *Staphylococcus aureus* [MRSA],⁴ *Kingella kingae*,⁵ and others.)

1. Newborns (younger than 4 mo): *S aureus*, *Enterobacter* species, and group A and B *Streptococcus* species
2. Children (aged 4 mo to 4 y): *S aureus*, group A *Streptococcus* species, *Haemophilus influenzae*, and *Enterobacter* species
3. Children, adolescents (aged 4 y to adult): *S aureus* (80%), group A *Streptococcus* species, *H influenzae*, and *Enterobacter* species
4. Adult - *S aureus* and occasionally *Enterobacter* or *Streptococcus* species

Direct osteomyelitis

1. General - *S aureus*, *Enterobacter* species, and *Pseudomonas* species
2. Puncture wound through an athletic shoe - *S aureus* and *Pseudomonas* species
3. Sickle cell disease - *S aureus* and *Salmonellae* species

- Radiographic evidence of acute osteomyelitis is first suggested by overlying soft-tissue edema at 3-5 days after infection.

- o Bony changes are not evident for 14-21 days and initially manifest as periosteal elevation followed by cortical or medullary lucencies. By 28 days, 90% of patients demonstrate some abnormality.

- o Approximately 40-50% focal bone loss is necessary to cause detectable lucency on plain films.

- MRI

- o The MRI is effective in the early detection and surgical localization of osteomyelitis.^{6,7}

- o Studies have shown its superiority compared with plain radiography, CT, and radionuclide scanning in selected anatomic *****s.

- o Sensitivity ranges from 90-100%.

The primary treatment for osteomyelitis is parenteral antibiotics that penetrate bone and

joint cavities. Treatment is required for at least 4-6 weeks. After intravenous antibiotics are initiated on an inpatient basis, therapy may be continued with intravenous or oral antibiotics, depending on the type and **** of the infection, on an outpatient basis.

The following are recommendations for the initiation of empiric antibiotic treatment based on the age of the patient and mechanism of infection:

- With hematogenous osteomyelitis (newborn to adult), the infectious agents include *S aureus*, Enterobacteriaceae organisms, group A and B Streptococcus species, and *H influenzae*. Primary treatment is a combination of penicillinase-resistant synthetic penicillin and a third-generation cephalosporin. Alternate therapy is vancomycin or clindamycin and a third-generation cephalosporin, particularly if methicillin-resistant *S aureus* (MRSA) is considered likely. Linezolid is also used in these circumstances. In addition to these above-mentioned antibacterials, ciprofloxacin and rifampin may be an appropriate combination therapy for adult patients. If evidence of infection with gram-negative bacilli is observed, include a third-generation cephalosporin.
- In patients with sickle cell anemia and osteomyelitis, the primary bacterial causes are *S aureus* and *Salmonellae* species. Thus, the primary choice for treatment is a fluoroquinolone antibiotic (not in children). A third-generation cephalosporin (eg, ceftriaxone) is an alternative choice.
- When a nail puncture occurs through an athletic shoe, the infecting agents may include *S aureus* and *Pseudomonas aeruginosa*. The primary antibiotics in this scenario include ceftazidime or cefepime. Ciprofloxacin is an alternative treatment.
- For patients with osteomyelitis due to trauma, the infecting agents include *S aureus*, coliform bacilli, and *Pseudomonas aeruginosa*. Primary antibiotics include

nafcillin and ciprofloxacin. Alternatives include vancomycin and a third-generation cephalosporin with antipseudomonal activity.

Complications of osteomyelitis may include the following:

- Bone abscess
- Bacteremia
- Fracture
- Loosening of the prosthetic implant
- Overlying soft-tissue cellulitis
- Draining soft-tissue sinus tracts

Prognosis

- The prognosis varies but is markedly improved with timely diagnosis and aggressive therapeutic intervention

30- All of the following muscles are rotator cuff except:

- a) supra-spinatus
- b) teres minor
- c) infraspinatus
- d) deltoid

- All of the following muscles are part of rotator cuff, except :

- a) supra-spinatus.
- b) Infra-spinatus.
- c) Deltoid.
- d) Subscapularis.
- e) Teres minor.

The rotator cuff muscles are the supraspinatus, infraspinatus, subscapularis, and teres minor.

Rotator cuff injuries are problems commonly encountered in athletic and nonathletic patients. Symptoms include pain, weakness, and decreased range of motion. Early diagnosis is important for identifying causes, implementing effective treatment, and preventing further injury.

Pain is the most common symptom encountered with rotator cuff injury.

Following pain, weakness and limitation of motion are the

next most common symptoms of a rotator cuff tear. The patient also may complain of clicking, catching, stiffness, and crepitus

31- Avascular necrosis of the head of femur is usually detected clinically by:

- a) 3 months.
- b) 6 months.
- c) 11 months.
- d) 15 months
- e) 9months

- "AVN" avascular necrosis of femoral head becomes evident clinically in:

- a) 3 months
- b) 6 months
- c) 9 months
- d) 12months
- e) 17 months

- Avascular necrosis of head of femur usually detected clinically by the age of:

- 1. 3 months
- 2. 6 months
- 3. 11 months
- 4. 15 months

Avascular necrosis (AVN) is defined as cellular death of bone components due to interruption of the blood supply; the bone structures then collapse, resulting in bone destruction, pain, and loss of joint function. AVN is associated with numerous conditions and usually involves the epiphysis of long bones, such as the femoral and humeral heads and the femoral condyles, but small bones can also be affected. In clinical practice, AVN is most commonly encountered in the hip. Recently, AVN of the jaw associated with bisphosphonate use has also been described.¹

Early diagnosis and appropriate intervention can delay the

need for joint replacement. However, most patients present late in the disease course. Without treatment, the process is almost always progressive, leading to joint destruction within 5 years. Patients taking corticosteroids and organ transplant recipients are particularly at risk of developing AVN. Most available data regarding the natural history, pathology, pathogenesis, and treatment of AVN pertains to femoral head necrosis.

Avascular necrosis has no distinguishing clinical features. Patients do not experience pain during the ischemic episode. Occult AVN can be present for more than 5 years before the onset of symptoms. Patients may be asymptomatic or may develop pain gradually and insidiously; they may experience a decrease in range of motion (ROM) and may walk with a limp. Pain may be excruciating and of sudden onset, with the patient able to note the exact time and date it began.

32- Supra-condylar fracture pt presented with swelling and cyanosis of finger after plaster Management:

- a) Removal of splint near finger
- b) Entire removal of all splint

33- in affected index finger, all can be used, except :

- a) rubber tourniquet
- b) xylocaine
- c) adrenaline
- d) ring block

34- Patient presented with fluctuant redness of finger bulb. Treatment:

- a) Incision
- b) Penicillin

35-Congenital dis***** of hip; all are true except :

- a) More in girls
- b) Best examined after 12-36 hours from birth after birth

immediately with neonatal examination

c) There will be limitation in abduction of thigh

d) Barlow test will give click indicating CDH

e) Can be treated by splint

The term congenital dis***** of the hip dates back to the time of Hippocrates. This condition, also known as hip dysplasia or developmental dysplasia of the hip (DDH), has been diagnosed and treated for several hundred years. Most notably, Ortolani, an Italian pediatrician in the early 1900s, evaluated, diagnosed, and began treating hip dysplasia. Galeazzi later reviewed more than 12,000 cases of DDH and reported the association between apparent shortening of the flexed femur and hip dis*****. Since then, significant progress has been made in the evaluation and treatment of DDH (see image below).1,2,3,4

This condition may occur at any time, from conception to skeletal maturity. The author prefers to use the term hip dysplasia because he believes this term is simpler and more accurate. Internationally, this disorder is still referred to as congenital dis***** of the hip.

More specific terms are often used to better describe the condition; these are defined as follows:

- Subluxation – This is incomplete contact between the articular surfaces of the femoral head and acetabulum.
- Dis***** – This refers to complete loss of contact between the articular surface of the femoral head and acetabulum.
- Instability – This consists of the ability to subluxate or dislocate the hip with passive manipulation.
- Teratologic dis***** – This refers to antenatal dis***** of the hip.

Frequency

The overall frequency of developmental dysplasia of the hip (DDH) is usually reported as approximately 1 case per 1000 individuals, although Barlow believed that the incidence of hip instability during newborn examinations was as high as 1 case per 60 newborns.⁵ According to his study, more than

60% of hip instability became stable by age 1 week, and 88% became stable by age 2 months, leaving only 12% (of the 1 in 60 newborns, or 0.2%) with residual hip instability.⁵

Presentation

Early clinical manifestations of developmental dysplasia of the hip (DDH) are identified during examination of the newborn. The classic examination finding is revealed with the Ortolani maneuver; a palpable "clunk" is present when the hip is reduced in and out of the acetabulum and over the neolimbus. A high-pitched "click" (as opposed to a clunk) in all likelihood has little association with acetabular pathology.^{22,23} Ortolani originally described this clunk as occurring with either subluxation or reduction of the hip (in or out of the acetabulum). More commonly, the Ortolani sign is referred to as a clunk, felt when the hip reduces into the acetabulum, with the hip in abduction.

To perform this maneuver correctly, the patient must be relaxed. Only one hip is examined at a time. The examiner's thumb is placed over the patient's inner thigh, and the index finger is gently placed over the greater trochanter. The hip is abducted, and gentle pressure is placed over the greater trochanter. In the presence of DDH, a clunk, similar to turning a light switch on or off, is felt when the hip is reduced. The Ortolani maneuver should be performed gently, such that the fingertips do not blanch.²⁴

Barlow described another test for DDH that is performed with the hips in an adducted position, in which slight gentle posterior pressure is applied to the hips. A clunk should be felt as the hip subluxes out of the acetabulum.⁵

The clinical examination for late DDH, when the child is aged 3-6 months, is quite different. At this point, the hip, if dislocated, is often dislocated in a fixed position.¹¹ The Galeazzi sign is a classic identifying sign for unilateral hip dis***** (see image below). This is performed with the patient lying supine and the hips and knees flexed. The examination should demonstrate that one leg appears

shorter than the other. Although this finding is usually due to hip dis*****, realizing that any limb-length discrepancy results in a positive Galeazzi sign is important.

Indications for treatment depend on the patient's age and the success of the previous techniques. Children younger than 6 months with instability upon examination are treated with a form of bracing, usually a Pavlik harness. If this is not effective or if the hip instability or dis***** is noted when the child is older than 6 months, closed reduction is typically recommended, often with the administration of traction before the reduction.

When the child is older than 2 years or with failure of the previous treatment, open reduction is considered. If the patient is older than 3 years, femoral shortening is performed instead of traction, with additional varus applied to the femur, if necessary. A patient with residual acetabular dysplasia who is older than 4 years should be treated with an acetabular procedure.

37- A 2-year-old baby was brought to the clinic because of inability to walk straight. On examination, there was asymmetry of skin creases in the groin. The Trendelenburg's sign was positive on the left side. Your diagnosis is:

- A. Fracture pelvis.
- B. Congenital hip dis*****.
- C. Fracture femur on the left side.
- D. Poliomyelitis.
- E. Rickets.

39- congenital hip dis***** (CHD)

- a) Dx after 3 yrs
- b) abduction + flexion (ortolani test) produce click
- c) abduction not limited
- d) lengthening of the leg
- e) rx by open reduction

31- Concerning green stick fracture in children, all are true

except:

- a- Extremely painful
- b- Most commonly involve the forearm
- c- Function of the limb is preserved
- d- Is incomplete fracture

تابع نماذج طب العظام

مجموعة الاسئلة القادمة جمعتها لكم من كتاب المعادلة الامريكية 2010
[LEFT]والحلول بعد الاسئلة في الاخر

A 17 year old male was skateboarding and fell while attempting to jump a flight of stairs. He lands with his upper arm against the edge of a step and hears a crack. At the hospital he is told that he has suffered a fracture of the left humeral shaft. What nerve and artery are at risk in this type of injury?

- a) Ulnar nerve and axial artery
 - b) Axial nerve and radial artery
 - c) Median nerve and brachial artery
 - d) Radial nerve and brachial artery
 - e) Musculocutaneous nerve and axillary artery
 - f) Posterior interosseous nerve and dorsal scapular artery
- 2) A 23 year old male is playing soccer on a muddy field when he is tackled from the side. He immediately grabs his lower right leg and to his horror feels a bone protruding through the skin. At the hospital he is diagnosed with an open fracture of the right tibia. Which of the following initial antibiotic regimens is appropriate:
- a) Cefazolin for 24 hours

- b) Cefazolin for 48 hours
 - c) Cefazolin, gentamicin and penicillin for 72 hours
 - d) Cefazolin and gentamicin for 48 hours
 - e) Gentamicin for 48 hours
- 3) A 45 year old female is picking apples from a tree when she slips and falls from a height of 14 feet, landing on her feet. Her right ankle is very sore after the injury so she proceeds to the local emergency room. According to the Ottawa Ankle Rules, which of the following would be an indication for x-ray imaging of the affected ankle?
- a) Inability to weight bear immediately after the injury
 - b) Inability to weight bear immediately after the injury and pain in the malleolar zone
 - c) Pain in the malleolar zone and body tenderness over the posterior aspect of the lateral malleolus
 - d) Bony tenderness over the posterior aspect of the medial malleolus
 - e) Bruising over the anterior aspect of the medial malleolus
- 4) A 23 year old male is involved in a multiple vehicle collision during morning rush hour. After arriving to the hospital via ambulance around noon, it is discovered that the gentleman is suffering, among a variety of other minor injuries, from an open fracture of his left distal radius. Upon questioning, it is revealed that this gentleman is quite healthy and taking no medications. He denies any allergies. On physical exam, the open fracture is quite obvious, although the laceration is <2cm. A neurovascular exam is unremarkable for any worrisome findings. At this point, the most important step in management would be:

- a) Immobilize in a cast and follow-up in 1 week to reassess healing
 - b) Proceed straight to the OR for an I and D, followed by ORIF
 - c) Inquire about tetanus status and respond accordingly
 - d) Administer antibiotics that target gram negative and anaerobic bacteria
 - e) Inquire about tetanus, give antibiotics and book the patient for an intraoperative I and D, and possible ORIF, to be done the following day
- Orthopedics

5) You are the on call orthopedic surgery resident during a stormy winter night. During the evening hours, you are paged to see a 73 year old lady who slipped on a patch of black ice. She is complaining of severe right hip pain and nothing else. Upon questioning, you find out she suffers from hypertension and osteoporosis; moreover, you also discover that she has broken her right distal radius on 2 other occasions û fixed with closed reduction on both occasions. Her osteoporosis is being managed with calcium, vitamin D and an unknown bisphosphonate. Her antihypertensive medication is unknown, but she admits that her blood pressure is well controlled. There are no other medications. The history also reveals that she has had an appendectomy and C-section in the past, has no allergies, has never smoked and her last meal was lunch time. On physical examination, her right leg is shortened and in marked external rotation. Her right leg, as well as her other extremities, are neurovascularly intact. The rest of the exam is unremarkable. You

send this lovely lady for an X-ray which shows a grade 4 subcapital fracture of her right hip. Her intraoperative treatment would include:

- a) Hemiarthroplasty of her right hip
- b) Total arthroplasty of her right hip
- c) Dynamic hip screw
- d) Gamma nail
- e) ORIF femoral neck

6) A 53 year old male suffers an undisplaced fracture of his medial malleolus. It is immobilized with a plaster cast. He has a follow up visit in the fracture clinic in 2 weeks time to assess bone healing. You explain to him the potential complications of this fracture, including all of the following

EXCEPT:

- a) Mal-union
- b) Non-union
- c) Infection
- d) Fat embolism
- e) DVT

7) An 18 year-old motorcyclist presents in the emergency department following an accident. He has a compound tibia and fibula fracture of the right leg and on examination the right leg has no pulses.

Your immediate treatment should be:

- a) Immediate angiogram
- b) Immediate surgery
- c) Casting and/or splinting
- d) Reduction and splinting
- e) X-ray

8) Which of the following is the most serious complication of a displaced supracondylar fracture of the humerus?

- a) Compartment syndrome of the forearm
- b) Failure to heal
- c) Healing in a non-anatomical position

- d) Injury to the median nerve
 - e) Significantly limited range of elbow motion
- 9) All of the following statements regarding knee injuries are correct EXCEPT:
- a) Locking of the knee may be due to a torn meniscus
 - b) Minor tears of the medial collateral ligament can be treated with brief immobilization then range of motion and strengthening exercises
 - c) Lateral meniscus tears are more common than medial meniscal tears
 - d) Anterior cruciate ligament tears may give a positive Lachman test
 - e) A knee dis***** may be associated with major ligament damage
- 10) An 83 year-old man has fallen while walking down stairs. He is brought to the emergency department with a 3-part intertrochanteric hip fracture. Which of the following procedures would you choose to perform?
- a) Hemiarthroplasty
 - b) Total hip replacement
 - c) Multiple pin fixation
 - d) Bipolar arthroplasty
 - e) Pin and plate
- 11) A 16 year-old female fell while roller-blading on her outstretched right hand. At a nearby emergency department X-rays confirmed the diagnosis of a closed Colles fracture. The proper reduction technique for this wrist fracture is which of the following:
- a) Slight extension, full pronation, and full ulnar deviation
 - b) Slight flexion, full supination, and full radial deviation
 - c) Slight extension, full supination, and full

- ulnar deviation
 - d) Slight flexion, full pronation, and full ulnar deviation
 - e) Slight extension, full pronation, and full radial deviation
- 12) Which of the following is least likely to cause avascular necrosis:
 - a) Sickle cell disease
 - b) Septic arthritis
 - c) Steroid use
 - d) Constrictive dressings
 - e) Post-traumatic fracture
- 13) A 24 year-old football player severely fractures his ankle while playing in a game and subsequently requires ORIF treatment. Indications for ORIF treatment of an ankle fracture include all of the following EXCEPT:
 - a) A fracture-dis*****
 - b) Undisplaced fracture with Grade II ATFL tear
 - c) Trimalleolar fracture
 - d) Unstable talar tilt
 - e) Unable to maintain a closed reduction
- 14) Which of the following radiographic features is most consistent with osteoarthritis of the knee?
 - a) Marginal erosions
 - b) Juxta-articular osteopenia (demineralization)
 - c) Loss of articular cartilage with narrowing of the radiologic joint space
 - d) Osteonecrosis (avascular necrosis) of the medial femoral condyle
 - e) Syndesmophyte formation
- 15) All of the following have been associated with posterior shoulder dis***** EXCEPT:
 - a) Ethanol

- b) Electricity
 - c) Exercise
 - d) Epilepsy
 - e) Encephalitis
- 16) Management of an open fracture should always include each of the following EXCEPT:
- a) Assessment of neurovascular status
 - b) Reduction and fixation of fracture
 - c) Irrigation and debridement of wound
 - d) Application of sterile dressing
 - e) Application of topical antibiotics

ANSWERS

- 1. D
- 2. C
- 3. C
- 4. C
- 5. B
- 6. D
- 7. D
- 8. A
- 9. C
- 10. E
- 11. D
- 12. D
- 13. B
- 14. C
- 15. C
- 16. E[/LEFT

تابع نماذج امتحانات العظام

trauma نيجي لاهم جزء اللي فيه 40% من الاسئلة ككل وهو ال

1-A 20 year old man involved in a RTA (Road traffic accident) brought to ER by friends. On examination he was

found to be conscious but drowsy .Vitals: HR 120 beats/min, BP 80/40 the most urgent initial management measure is:

- A) CT scan of brain
- B) X-RAY of cervical spine
- C) Rapid infusion of crystalloid ABC
- D) ECG to exclude heamopericardium
- E) U.S abdomen

2- A 30 year old man presents with shortness of breath after a blunt injury to his chest,RR 30 breaths/min,CXR showed complete collapse of the left lung with pneumothorax, mediastinum was shifted to the right. The treatment of choice is:

- A) Chest tube insertion
- B) Chest aspiration
- C) Thorocotomy and pleurectomy
- D)IV fluids & O₂ by mask
- E) Intubation

3- in a conscious multiple trauma patient your priorities are:

- a)to stop bleeding,then IV fluids
- b)to secure air entry,breathing then BP
- c)to start an iv fluid and send blood for cross matching
- d)to intubate the patient
- e)to do peritoneal lavage then IV fluids

- Conscious with multiple trauma patient. Your priority is:

- a-intubate the patient
- b-peritoneal lavage then insert IV.
- c-assess airway, breathing & BP.
- d-insert IV line then send blood for matching.

- Pt conscious with multiple trauma, first step in management:

- Assess airway
- Iv line
- Endotracheal intubation
- Blood transfusion

- Patient with multiple trauma, conscious Rx:

- a) ABC
- b) I.V.F
- c) Cross match

4- in abdominal trauma, all true except:

- a) spleen is the common damaged organ
- b) badly injured spleen need splenectomy
- c) abdominal lavage (DPL) often exclude abdominal hemorrhage
- d) abdominal examination often accurate to localize the site of trauma

- Blunt trauma: most frequent injuries are spleen (45%), liver (40%), and retroperitoneal haematoma (15%).
- Diagnostic peritoneal lavage :Mostly superseded by abdominal sonography for unstable patients and CT scanning in stable patients. Useful, when these are inappropriate or unavailable, for the identification of the presence of free intraperitoneal fluid (usually blood).Aspiration of blood, gastrointestinal *****s, bile, or faeces through the lavage catheter indicates laparotomy.

5-.recent heamothorax:

- a) thoracotomy and decortication
- b) aspiration of chest
- c) insertion of chest tube
- d) volume replacement only

6-best treatment for tension pneumothorax & pt in distress:

- a) IVF
- b) O2
- c) Respiratory stimulator
- d) Aspiration of air by needle
- e) Intubation

7-the best method for temporary control of bleeding is:

- a) arterial tourniquet
- b) venous tourniquet
- c) direct finger pressure
- d) adrenaline

8-indication of tracheostomy, all true except:

- a) foreign body in larynx
- b) LT recurrent nerve cut
- c) CA larynx
- d) In some procedure which involve in radiation exposure
- e) None of the above

Indications

The advent of the antibiotic era coupled with great advances in anesthesia have made tracheotomy or tracheostomy a commonly performed elective procedure.

To bypass obstruction

Congenital anomaly (eg, laryngeal hypoplasia, vascular web)

Foreign body that cannot be dislodged with Heimlich and basic cardiac life support (BCLS) maneuvers

Supraglottic or glottic pathologic condition (eg, infection, neoplasm, bilateral vocal cord paralysis)

Neck trauma that results in severe injury to the thyroid or cricoid cartilages, hyoid bone, or great vessels.

Subcutaneous emphysema

Appears in face, neck, or chest

Readily dissecting air, especially through inflamed or traumatized tissue planes, leading to massive soft tissue edema

Facial fractures that may lead to upper airway obstruction (eg, comminuted fractures of the midface and mandible)

Edema

Trauma

Burns

Infection

Anaphylaxis

To provide a long-term route for mechanical ventilation in cases of respiratory failure

To provide pulmonary toilet

Inadequate cough due to chronic pain or weakness
Aspiration and the inability to handle secretions (The cuffed tube allows the trachea to be sealed off from the esophagus and its refluxing *****s. Thus, this intervention can prevent aspiration and provide for the removal of any aspirated substances. However, some would argue that the risk of aspiration is not actually lessened, as secretions can leak around the cuffed tube and reach the lower airway.)
Prophylaxis (as in preparation for extensive head and neck procedures and the convalescent period)
Severe sleep apnea not amendable to continuous positive airway pressure (CPAP) devices or other, less invasive surgery

9-length of trachea in adult is:

- a) 11-12cm
- b) 24cm
- c) 20cm
- d) 4cm
- e) None of the above

the length of the trachea is 10–15 cm in adults (average 12.5 cm) and the distance from the vocal cords to the upper end of the trachea as 1 cm, three diagrams representing the cords to the carina distances (CCD) were drawn representing: 1) a short trachea (11 cm), 2) an average length trachea (13.5 cm), and 3) a long trachea (16 cm).

10- surgery- the most effective monitoring method in pt with acute bleeding is:

- a)HB
- b) HCT
- c) Vital sign
- d) Amount of blood loss

11- pt sustained abdominal truma,and was suspect intra-peritoneal bleeding,the most important diagnostic test is:

- a) CT scan - “if vitally stable”
- b) Direct peritoneal lavage DPL

12- A 21 year old is involved in a head-on collision as the driver of a motor vehicle. He is noted to be severely tachypneic and hypotensive. His trachea is deviated to the left, with palpable subcutaneous emphysema and poor air entry in the right hemithorax. The most appropriate first treatment procedure should be:

- a. Arterial puncture to measure blood gases.
- b. Stat chest x-ray.
- c. Intubation and ventilation.
- d. Needle thoracocentesis or tube thoracotomy prior to any investigations.
- e. Immediate tracheostomy.

13- The respiratory distress syndrome after injury is due to:

- a) pneumothorax
- b) aspiration
- c) pulmonary edema
- d) pulmonary embolus
- e) none of the above

ARDS formerly most commonly signified adult respiratory distress syndrome to differentiate it from infant respiratory distress syndrome in premature infants. However, as this type of pulmonary edema also occurs in children, ARDS has gradually shifted to mean acute rather than adult.

14- most commonly affected organ in abdominal blunt trauma:

- a) Liver
- b) Spleen (emergency medicine recall p 41 9)
- c) Kidney
- d) Intestine

-Most commonly affected organ in blunt abdominal trauma is:

4-Liver

B-Spleen
C-Kidney
D-Intestine

" إمتحان الهيئة السعودية فى العظام لشهر إبريل 2012 "

السلام عليكم ورحمة الله وبركاته

1

. أود أن أعتذر عن الأخطاء الإملائية ولكنه تقصير منى -
لم أستطع بالطبع أن أتذكر نص الاسئلة أو الاختيارات وفى بعض الاسئلة -2
. فقط تذكرت النص .. ولكن المغزى هنا معرفة الموضوع المطلوب مراجعته
مهمة جدا جدا جدا .. من الآخر تتحفظ Toronto notes مذكرة-3
. "بالكلمة بجد" مش هزار
فى ورقة وراجعهم قبل name # او test نصيحة خاصة : اكتب اسم كل-4
. الامتحان لأنهم يحبوها آخر ثلاث أربع حاجات
5-Branches ال truma,pediatric,sport medicine طبعا أهم-
الامتحان 70 سؤال .. على النت طبعا .. خلال ساعتين-6
أخيرا وليس آخرا : الامتحان مش سهل بس برده مش صعب وباريت -7
. "تفكيركم يكون سهل ومباشر" بلاش تعقيد

وربنا يوفق الجميع بإذن الله

1-7 yrs old child e Becker's cyst

2-Hypotension 30-40% blood loss

3-Salter Haris classification Most common type

4-Most Trace elementZinc

5-Repair of FDS tendon with loss of motionzone 2

6-Ischaemic index 0.6

7-Brodi's abcess ttt

8-Paget's dis.best ttt ic medical

9-Aspiration of joint synovium e <200 wbcs & <25% neutrophils normal joint

10-child e ms dystrophy had sciliosis >20 degree
Surgery

11-Hemiplegic child e equine varus

12-case :Otto pelvis

13-x ray: unilateral bow leg in 3 years old e progressive bowing in the last 14 month

14-conginital talipes equine varus in neonate e satisfactory result in 3 months of repetitive plasars ,PREDICTION of recurrence is....

Severity low education of the parents low compliance
Presented in old age

15-Recurent ant. Dis***** in 14 year patient ttt

16-20 degree genu valgus patientwhich osteotomy

17- New born e ability to dorseflex his foot e abduction up to touch the front of his leg ,tttthis congenital calceneovalgus ,ttt is gome stretching

18-child e osteotomy e spinal anaesthesia , in the 2nd day develope vomiting , anorexia, mental confusion ...why?

19-Pain in the thigh in 11 yrs old patient e 90prcentile weightSCFE

20-x rayrotuberance in front of 13 yrs old child's tibia for the last 3 months which only painful after playing ...ttt

21-Clay Sheverllen 's # spinous process # of C7

22- Hawkins 3 #ttt

23-Piano sign DRUJ

24-Coll's # and after 6 weeks of closed reduction and cast ,develop stiffness and pain ,next step of diagnosis... x ray

25-proximal humeral # 4 parts in old patient
....Hemiarthroplasty

26- proximal humeral # 4 parts in Young patientORIF

27-non united hypertrophic # ulnaORIF e plate and bone graft

28-Bennet #, deforming forceAPL

29-pulmonary dysfunction in polytruma patient e midshaft femur & thoracic spine injury , whytruma to the chest

30-Dis***** of the elbow ... closed reduction and splint

31-In 90-90 degree tractionsubtrochantric # e lesser trochanter attaced to the proximal fragment

32-4mm screw3.2 drill

33-# proximal humerus e loss of sensation in the lateral of arm eout ability to flex the forearm musculocutaneous n. injury

34-Gaymon tunnel syndrome ulnar nerve

35-Rotational deformity Determined by

36-Cement component

37-Kinebock's dis.....lunate AVN

38-talus

39-Most common sciliosis.....idiopathic

40-Absent pedice in AP

41-Angle of sciliosisCubb's angle

42-Ankle areflexia e bladder symptomscauda equinq syndrome

43-Arthrotomy , approach

44-THA e infection after 9 days

45-THA , which quadrants liable in acetabulum in danger e screws Post.sup. & post.inf.

46-Atheletic football player e MCL grade 1 & ACL grade 3conserve until healing of MCL then reconstruct ACL

47-Popping in flexion and extension of the knee Discoid meniscus

48-valgus deformity e PCL injury

49-Which tunnel liable to injury the popliteal a... tibial tunnel in PCL reconstruction

50- Thomas sign Fixed flexed contracture

51-types of acetabular #

52-10 yrs old child e transcervical femur # ...ORIF

53-coronoid #

54-How tension band act as compression

55-Terrible triad ... # head radius, # coronoid & elbow dis*****

56-full thickness cartilage defect ,how liable to form hyaline cartilage

57-Meniscal repair, which part is good healing

58-in which zone in the meniscus is good healing

59-Best predictor in neck femur #

60-when starting ttt in equine varus immediately

61-osteolysis in joint replacement ,because of what

62-Ant. Knee dis***** ,after reduction the pulse is good but most stable in 30 degree flexion , what's the management

63-Hawkins#

64-X ray of mushroom like mass in the upper tibia ... malignant transformation

65-Nidus in the D10 of the spine

66-posterocorner tear repair

67-Low radial pulse palsy, which movement can be actively produced

68-After THA, the patient develops pain in the thigh and calf muscles DVT

69-Child suffers of pain after AECast Remove it

70-Ant. Dis***** of the elbow ,the method in which the patient lies prone with a heavy object in his hand.... Stimpson's

method

71-Elbow dis***** e coronoid # ... ORIF

72-case,numbness and pain in the radial 3 fingers,how to manage.....nerve conduction velocity

73-THA e greater trochanter # minimally displaced

74-Kinder osteotomy in pannus palnus

75-4 monh old infant suffering from painful swelling in the mid 1/3 of the tibia and mandible , what the diagnosis

75-case, pulled elbowdivert the child attention then manipulate

76-Infected non united tibia ,manage

77-Clow toes tight shoes

78-Paget's dis, medical applicationcalcitonin

All of the following is right

Bisphpphonate-cacitonin-methotrexate))

78-Melphalan cytotoxic drug....multiple myloma

79-whiplash injury of the spine

80-PCL & posterocorner injury Repair both at the same time

81-C/I of reamed ILK in tibia

82-Maquet osteotomy

83- radius head dis. # ,on approaching , secure what

84-to secure PIN in post. Approach , the forarm is inextension pronation

85-Trigger finger ,released in which pulleyA1

86-cell never shows mitotic figures ...
Osteoblast osteocytes osteoclast chondrocytes

87-In DDH ,investigation U/S

88- Buttress plate is used in:
a. diaphyseal fracture
b. ****physeal fracture
c. ****physeo-epiphyseal fracture
d. ****physeo-diaphyseal fracture
(c)

89-
as regard ischemic index diabetic foot or amputation is
expected to heal when the index is:
a. 0.6
b. less than 0.5
c. less than 0.4
d. less than 0.3
(a)

90- the most common complication of ilizarov in treatment
of comminuted fracture tibial plateau is
a. knee stiffness
b. pin tract infection
c. septic arthritis
b))

91- indication of open reduction and internal fixation in
tibial plateau fracture when the displacement in the articular
surface is:
a. 2mm
b. 5mm
c. 10mm
d. 15mm
(b)

92- the normal notch index is

- a. 0.231
 - b. 0.312
 - c. 0.132
 - d. 0.321
- (a)

93- loss of function may occur when we do repair in flexor tendon in which area:

- a. insertion of FDS
 - b. from the distal palmar crease to the site of insertion of FDS
 - c. carpal tunnel
 - d. proximal to carpal tunnel
- (b)

94- what is the cause of this case

Serum ca normal

Serum phosphate..... decreased

Urine ca..... decreased

Urine phosphate Increased

Alkaline phosphatase increased

A renal disfunction

B gene mutation

c. malabsorption syn.

d. thyroid adenoma

(b) the cause of hypophosphatemic rickets

95-osteomyelitis occurs in****physic

96- Compression plate

97-when the plate as tension plate in # femur put it laterally

- 1- thoma's test is test for
a-adductin deformity of hip
b-abduction deformit of hip
c- flexion deformity of hip

- 2- common complication of ues of illizarove in ttt of
comminuted tibial fracture
a- knee pain
b- pin tract infection
c- non union

3- female 60 yr history of coll's fracture 6 months ago come to clinic with severe pain of rt wrist and during waiting in clinic she become nervouse and fighting with nurse ..by examination no odema , warm of wrist , sever pain , decrease with warm water and x ray there is good union
>>>>what is best management now

- a-refer pt to psychiatric center and teaching nurse the ethics with patient
b-intensive physiotherapy with nsaid and tramadol tab
c- sympathetic nerve block

- 4- bamboo sign is common with
a- scolionsis
b- ankylosing spondiolitis
c- kyphosis

- 5- male athelet with injury to knee there is pcl type 3 and posterolateral corner what is best management for him
a- physiotherapy
b- surgical rapair for pcl only
c- surgical repair for both
d- conservative of both of them

- 6- becker's cyst in child 7 yr
a- surgical removal
b- conservative

- 7- 70 yr old male with fracture head of humerus 4 parts best surgical ttt
a- total shoulder replacement

b- hemiarthroplasty
c- open reduction internal fixation
8-pt female with rheumatid arthritis pain and numbness of thumb and lateral of
a- carpal tunnel syndrome
b- ulnar tunnel syndrome
8- sickle cell patient ..most common cause of osteomyelitis
a- steptococcus
b- staph
c- pseudomonas
d- salmonella typhi
9- most common cause of infection of septic arthritis in 4 month to 4 years children
a- staph aureus
b- streptococcus
c- hemophilus influenza
10- pt with fracture coronoid 65% with stable elbow joint best ttt
a- long arm cast
b- fixation
11- index notch is
0.231
0.123
1.0231